# LAPTOP COMPUTER

#### FIELD OF THE INVENTION

The present invention relates to laptop computers, and more particularly to portable computers for use in the presentation of information to selected observers in addition to the operator of the computer.

### BACKGROUND OF THE INVENTION

Computers, particularly laptop computers, in combination with selected peripheral equipment have been designed in the past for utilization by the computer operators to make presentations to groups of observers such as pupils and the like. The techniques utilized when operating such computers 15 are intended for the presentation of selected materials, viewable by the operator on the computer display screen, to several individuals or groups on secondary or supplemental display screens that are large enough for the entire group to observe. Such techniques are common for the presentation 20 of materials in seminars, sales meetings, or similar gatherings wherein it is the intention of the computer operator to display the information available to him on the display screen to a group.

Such computers, and the implementing software together 25 with the necessary peripheral equipment are usually relatively bulky and very expensive. Further, such apparatus and presentation techniques are inappropriate when the presentation is to be made to only one or two observers in addition to the operator. For example, when an operator wishes to display the contents of his computer display screen to another person or observer seated at the same table, it is necessary for the observer to either look over the operator's shoulder or to sit adjacent to the operator so that both individuals may share the same view of the display screen  $^{35}$ This situation is not entirely acceptable in most sales-type presentations wherein the operator and the observer are not working together or are in an relationship of salesperson/ prospective purchaser.

## OBJECTS OF THE INVENTION

It is therefore an object of the present invention to provide a laptop computer system for use in the presentation of

It is a further object of the present invention to provide a laptop computer having a duplicate display positioned to permit both an operator and an observer to simultaneously opposing position at a common table or desk.

It is still another object of the present invention to provide a laptop computer incorporating a duplicate display constructed to permit the positioning of the displays in opposite displayed information by the operator and observer.

These and other objects of the present invention will become apparent to those skilled in the art as the description thereof proceeds.

### BRIEF DESCRIPTION OF THE DRAWINGS

FIG. 1 is a perspective view of a laptop computer constructed in accordance with the teachings of the present invention.

FIG. 2 is a side elevation of the laptop computer of FIG. 1.

FIG. 3 is a side elevation of the laptop computer of FIGS. 1 and 2 shown in its collapsed carrying position.

FIG. 4 is a perspective view of an alternative embodiment of a laptop computer constructed in accordance with the teachings of the present invention.

FIG. 5 is a perspective view of the laptop computer of FIG. 4 showing the second display screen hinged to its operative position.

### DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENTS

Referring now to FIGS. 1 and 2, a perspective view of a laptop computer constructed in accordance with the teachings of the present invention is shown. The computer includes a case 10 enclosing the usual portable computer components such as processors, memories, including RAM, and hard disk, floppy disk drives, modem cards and similar components presently available in conventional laptop computers. Laptop computers are portable, usually selfpowerable computers, having usual desktop computer functions, but in lightweight compact form to facilitate carrying.

The laptop computer of FIG. 1 includes a keyboard 12 providing the usual alpha-numeric and command data entry keys 14 as well as function keys 16 and provision for a mouse or its equivalent such as an "eraser pointer" 18 with the right 20 and left mouse 22 button keys. In the conventional prior art laptop computer, a display screen is hinged to the computer case and may be folded into a storage position such that the display covers the keyboard to thus close the laptop computer to protect both the display and the keyboard for transport. In the present invention, a similar display screen 30 is hinged to the case of the laptop and is connected to the computer components within the case to provide a means for displaying information to the operator. The display screen 30 may form any of the well known monitor or display types but is usually of the liquid crystal type in view of the compact construction provided by such 40 structure. The display screen 30 is rectangular and includes a bottom edge and a top edge 31 and 32, respectively, connected by side edges 34.

In the laptop of the present invention a second display screen 35 is hinged to the first display along the top edges information to observers in addition to the operator of the 45 thereof. That is, the first display is hinged along its bottom edge 31 to the computer case 10 while the first display's top edge 32 is hingedly secured to the top edge 40 of the second display screen 35. When the laptop of the present invention is opened for use and is in its operative position as shown in view the same information while seated in a conventional 50 FIGS. 1 and 2, the operator faces the first display screen 30 in the conventional manner and operates the keyboards in accordance with the usual techniques for entering and retrieving information to and from the computer. The information displayed on the display screen 30 is readily availdirections to thereby permit simultaneous viewing of the 55 able to the operator; however, since the display screen is usually small to provide the necessary lightweight and portability of the laptop, it is difficult when making a presentation to be discussing the contents of the display screen information with an observer if the observer or observers have to look over the shoulder or crowd next to the operator to view the display screen. Thus, the second display screen 35 is connected to the computer components within the computer case 10 in a manner similar to the first display screen wherein the information on the second display screen 35 is identical to that contained in the first display screen 30. Thus, when certain information is entered on the keyboard or is called up from memory to be displayed on the first